BULLETIN OF
THE NEW YORK
ACADEMY OF MEDICINE

VOL. 12 MARCH, 1936 No. 3

MARION SIMS AND THE ORIGIN OF MODERN GYNECOLOGY*

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New York

Gynecology as an independent specialty had no existence as such until the latter half of the nineteenth century, and the impetus that started its development originated in this country as a result of the genius and persistent efforts of J. Marion Sims who founded the Woman's Hospital in New York from whence proceeded gynecological teaching that spread throughout the world.

Until that time little was known and less done to alleviate the sufferings women had to endure, and gynecological practice was limited to the use of a tubular speculum through which erosions of the cervix were treated with nitrate of silver, the employment of an infusion of red oak bark for leucorrhoea, and a spherical pessary for the relief of prolapse. Operative gynecology was rarely attempted.

Sims gave the impulse which upset the do little conservative treatment of diseases peculiar to women which then prevailed and opened wide the field of active surgical, scientific and rational methods that are now in vogue.

The career of Sims reads like a fairy tale. He was born in Lancaster, South Carolina, January 25th, 1813. His

* Read before the Section of Historical and Cultural Medicine, November 13, 1935.

ancestors were hardy Colonials of English and Scotch-Irish descent. His father, John Sims, had little education until late in life and was therefore most desirous that his son should have every educational advantage. He wished him to be a lawyer, his mother Mahola MacKey Sims, wanted him to be a minister, and to their great disappointment he chose medicine, not for any love for it, but his dislike for medicine was less than his dislike for the law or the ministry.

Sims' preliminary education consisted of instruction in local schools. He then spent two years in Columbia College, S. C., graduating in 1832, after which he commenced to read medicine with Dr. Churchill Jones in Lancaster. Sims says he was a great surgeon and that he received his inspiration for surgery from him. He then studied at the Charleston Medical School in 1833, after which he went to Jefferson Medical College in Philadelphia, graduating in 1835. There he had the benefit of working under Dr. George McClellan, a great surgeon and father of the Civil War General, for whom he had a great admiration.

He then returned to Lancaster to practice, but after his first two patients died, he moved to Mt. Meigs, Alabama, and later to Montgomery where he settled permanently. He rapidly established a reputation as a surgeon of ability. In 1837 he had removed the lower jaw without mutilation, and the superior maxilla for a tumor of the antrum in another instance. He was the first surgeon in the South to treat clubfoot successfully, and one of the first to operate on strabismus. He also operated with success on harelip, which he reported in the Journal of Dental Surgery in 1845 and which was his first publication.

In 1845 he first encountered the condition of vesico-vaginal fistula and in line with the opinion of the day pronounced it incurable.

In those days the obstetric forceps were not in general use, and there was a lack of obstetric knowledge and care, and therefore not infrequently the baby's head became

impacted and compressed the bladder against the pelvic bones for hours, which resulted in devitalizing the tissues so that in a few days they sloughed out leaving a vesico-vaginal fistula. These pitiable patients were to be found in every community with no hope of cure.

Shortly after Sims saw his first case, he saw three others all in negro slaves. The morning after he had seen the last case he was called to attend a woman who had been thrown from her pony. Sims found her with great pain in her back and vesical and rectal tenesmus, and a digital examination disclosed an acute retroversion of the uterus. He then remembered the teaching of Professor Prioleau in the Charleston Medical College, that in such a case he should place the patient in the knee chest position, and try to reduce the dislocation with one finger in the rectum and another in the vagina.

He, therefore, placed his patient in the knee chest position and on retracting the perineum with his fingers, to his great surprise the air rushed in ballooning the vagina, and on turning the woman on her side he heard the air escape. He at once realized that the posture had allowed the intestines to be displaced from the pelvis leaving a vacuum and that the air distending the vagina would permit of an access for examination and operation such as had never been available before.

He immediately returned home, having bought a pewter tablespoon on the way, and placed the negro slave, whom he had previously dismissed as incurable, in the knee chest position, introduced the bent handle of the spoon when in his own words "he saw everything as no man had ever seen before. The fistula was as plain as the nose on a man's face."

Sims worked for four years before he succeeded in curing his first case. He established a hospital with twelve beds in his yard for these patients who were negro slaves, and he operated forty times on three patients and twenty-one times on one of them during this experimental work.

His four years of failure was due to infection of his sutures as this was before the days of asepsis or antisepsis, and also there was no anaesthesia. During this work he devised the method of fastening the sutures in inaccessible locations with a perforated shot. It was not until he picked up a piece of spiral spring wire one day when he hit upon the idea of using silver wire for suture material instead of silk that he achieved success, as the silver wire sutures did not become infected and therefore allowed the wound to heal. An S shaped self retaining catheter made of block tin, which he devised, was an essential part of his technic.

"Anarcha" his first successful case had been operated on thirty times, and when the time came to remove the sutures he wrote "with a palpitating heart and an anxious mind I turned the patient on her side, introduced the speculum, and there lay the suture apparatus just exactly as I had placed it. There was no inflammation, there was no tumefaction, nothing unnatural, and a very perfect union of the little fistula." Sims' original report was published in the American Journal of the Medical Sciences, 1852, XXIII, January.

Shortly after this Sims succumbed to a severe dysentery which rendered him an invalid for six years, but which resulted in his seeking health in a northern climate and his coming to New York in 1853.

He received a cold reception from the profession in New York, although he was able to demonstrate his operation successfully on a patient of Dr. Valentine Mott.

He proposed to found a hospital for women, especially for the cure of cases of vesicovaginal fistula, but he met stubborn opposition from the medical fraternity. In 1854 however through the influence of a newspaper reporter, Henry L. Stuart, who had heard of Sims' work, and through the friendship and help of Dr. John W. Francis, who stood high in the profession, a call was issued for a public meeting to be addressed by Sims on the importance of organizing a special hospital for women. The New York papers of

May 17, 1854 carried the following announcement due to Stuart's influence,——"Lecture on the Necessity of Organizing a Great Hospital in the City for the Diseases Peculiar to Females,—the undersigned will deliver a lecture on this subject at the Stuyvesant Institute, No. 659 Broadway, on Thursday evening, the 18th inst. at eight o'clock. The medical profession and the public are respectfully invited to attend. J. Marion Sims, M.D., 77 Madison Ave."

Seven hundred invitations were sent out, and in spite of a heavy rain some two hundred and fifty doctors and laity filled the hall, and as a result a Committee was appointed to launch the project.

Professional jealousy however, seemed to overwhelm Sims' efforts and doom him to failure when the timely support of a few influential farsighted women came to his aid, and thus in spite of bitter opposition of the medical men then dominant in New York, the Woman's Hospital came into being and opened its doors on May 4th, 1855 at 83 Madison Avenue in a house rented for the purpose. The successful launching of the hospital was due to Dr. Fordyce Barker, Dr. Francis, Dr. Mott and Dr. Stevens. This first Woman's Hospital had about thirty beds.

Sims was fortunate in procuring Thomas Addis Emmet as his assistant, and the first patient was Mary Smith, an immigrant from Ireland, who had a bad fistula which her Irish physician had attempted to alleviate by introducing a wooden seine bob, or float, to stop the opening. This had become incrusted with phosphatic deposit. This patient was relieved of her infirmity after many operations so that she was able to serve as a nurse in the hospital.

Anaesthesia was not in use at the hospital until the close of the Civil War.

We cannot speak of the early days of the hospital without referring to Margaret Brennan, who, Emmet has stated, was the pioneer nurse in this specialty. She was illiterate but a most remarkable woman whose whole life was guided by an earnest wish to discharge her duties faithfully and

serve God through her unselfish care of others. For forty years she served as assistant holding the speculum for Sims and Emmet.

The hospital was closed for three months in the summer as it was thought that wounds did not heal well in hot weather.

The first anniversary of the Woman's Hospital was held in Clinton Hall in Astor Place on February 9th, 1856, and from this time the hospital flourished. A charter was obtained in 1857.

While the first patients in the hospital were sufferers from vesicovaginal fistula, various gynecological operations were soon developed, until the fame of the institution as a fountain head of knowledge for the cure of the many ailments peculiar to the sex became widespread throughout the land, and the hospital became a Mecca for all who wished to perfect themselves in gynecology.

Through Sims' efforts the city of New York gave to the hospital in April, 1858 the plot of land situated between 49th and 50th Streets and Lexington and Park Avenues, which was the old potter's field during the cholera epidemic of 1832. Many thousands of bodies had to be removed and reburied on Ward's Island. This is where the Waldorf Astoria Hotel now stands.

A new hospital was built and opened for patients October 12, 1867. It had accommodation for seventy-five patients. In September, 1877, a second building similar to the first was completed and opened.

This property was sold in 1902 and the present hospital, the third, on West 110th Street was opened in December, 1906.

With the successful establishment of the Woman's Hospital, Sims' position as a leader in gynecology was definitely recognized.

In 1861 he went to Europe and was immediately received with great cordiality by the profession in Ireland, England, Scotland and in France and Belgium. He successfully performed his operations in famous clinics throughout Europe. He operated successfully on five cases in succession in Paris, and also in London and Brussels. His first case operated on in London was at the Samaritan Hospital and unfortunately the patient died. This is the first case he had ever lost from his operation. In short, he created such a furore and his European reputation became so great that he had a large consultation practice and had as his patients many of the titled aristocracy, among whom was the Empress Eugenie, wife of Napoleon III.

Sims remained abroad during the period of the Civil War, in part due to his Southern sympathies. By 1863 he had reached general and authoritative recognition in America, largely as a result of his great success in Europe. The honors and renown that followed were but the natural sequence.

In 1870 while in Paris he helped to organize the Anglo-American Ambulance Corps for service in the French Army in the Franco-Prussian War. He was Surgeon in Chief of the Corps with a staff of seven American and eight English surgeons. He was on the battle field of Sedan and in charge of a military hospital of four hundred beds, treating both French and Prussian wounded. When Marshal McMahon was wounded at Sedan he accompanied him off the field.

While in London in 1869 he published his book, "Clinical Notes of Uterine Surgery" which was issued simultaneously in English, German and French. Its publication attracted much attention and awakened the profession throughout the world to American gynecology of which he may be justly termed the father.

Sims returned to the Woman's Hospital in 1872, but resigned in 1874, on account of an absurd rule passed by the Lay Board of Managers that a due regard for the modesty of the patient required limiting the number of

spectators to fifteen. Sims had any number of spectators, both American and foreign, so when the hospital refused to alter this rule the hospital's father resigned.

Marion Sims died suddenly on November 13, 1883 and was buried in Greenwood Cemetery.

In reviewing Sims' contribution to gynecology it is interesting to note that his great achievement in the cure of vesicovaginal fistula was not priority as practically the main points in his technic had been attempted by various operators. Prior to Sims, favorable results in the operation of vesicovaginal fistula were incidental rather than the result of a logical and rational method of procedure. His success was due to first—the discovery of a method of access and exposure of the lesion, by posture and his speculum, second—silver wire sutures (aseptic), third—a self-retaining block tin catheter,—and as has been pointed out by Bissell he popularized a technic which was simple in principle and more universally applicable than any technic previously devised.

Sims in his first operations for vesicovaginal fistula employed the knee chest posture, but he soon utilized the lateral prone position which is now known everywhere as the Sims posture. In his first work the direction of the denudation was transverse to the vaginal axis, but later became longitudinal. A spear pointed straight needle was used at first and the edges of the denuded fistula were held in apposition by a lead clamp on each side of it, which were fastened with silver sutures, crushed shot anchoring the sutures against the proximal clamp.

According to Emmet, Sims first suggested bimanual examination. He invented the depressor, the tenaculum, a flexible copper sound and a uterine elevator. He first introduced glycerin on vaginal tampons. He devised block tin pessaries which could be given any shape, and he was the first to abandon barbarous quill sutures in operating on the perineum, using interrupted silver wire instead.

He was the pioneer in anterior wall surgery for cystocele and in operations for prolapse. Sims wanted to do a laparotomy but was opposed by his consultants and did not do his first ovariotomy until 1860.

In 1846 Sims published an article on "The Nature and Cure of Trismus Nascentium" in the American Journal of Medical Sciences. Sims' theory as to the nature of this injury was not accepted by the profession however until some forty years later when Dr. J. F. Hartigan of Washington, D. C., in 1884 confirmed the truth of Sims' theory in an essay on the "Pathology and Treatment of Trismus Nascentium or Lockjaw in Infants" in the same Journal.

Sims originated the operation for cholecystotomy without knowledge that Robb of Indiana had preceded him by a few months.

On October 6, 1881 Sims presented an epoch making contribution before The New York Academy of Medicine entitled "The Careful Aseptic Invasion of the Peritoneal Cavity for the Arrest of Hemorrhage, the Suture of Intestinal Wounds and the Cleansing of the Peritoneal Cavity and for All Intraperitoneal Conditions."

Quoting from his own experience in the Franco-Prussian War he courageously promulgated these rules for gunshot injuries of the abdomen,—first—the wound of entrance should be enlarged sufficient for a thorough inspection,—second—injuries should be sutured and bleeding vessels ligated,—third—a search for extravagated matter and cleansing of the cavity,—fourth—the surgeon must judge as to the advisability of drainage.

In addition Sims contributed some seventy-eight or more articles on a variety of gynecological and other subjects. "The Story of My Life," his autobiography, was published after his death, and edited by his son.

He was the recipient of numerous decorations from foreign governments, among them France's Commander of the Legion of Honor, Knight of the Order of Isabella the Cath-

olic of Spain and Knight of the Order of Leopold of Belgium, and from Germany the Iron Cross, and two medals from the Government of Italy.

While visiting in Budapest a few years ago I was conducted through the University Hospital by the Professor of Gynecology who proudly pointed out to me the name over one of the wards which had been dedicated to Marion Sims.

He was one of the founders of the American Gynecological Society and its President in 1880. He was the President of the American Medical Association in 1876. In 1881 Jefferson University conferred upon him the Degree of Doctor of Laws. He also received Honorary Membership in many Foreign Scientific Societies.

A gifted orator has said of him, "He possessed the qualities ideal in the make-up of a truly great surgeon, namely, the brain of an Apollo, the heart of a lion, the eye of an eagle and the hand of a woman."

The J. Marion Sims Asylum for the Poor was founded by him in Lancaster, S. C.

Immediately after his death a movement for the erection of a memorial to his memory was inaugurated in Europe and his native country. This was a spontaneous gift from his brothers in his profession throughout the civilized world, and from many of the unfortunate beings his genius and skill had benefited. This monument was erected in Bryant Park, New York in 1894, and was moved to a new site on the borders of Central Park on Fifth Avenue and 103rd Street, opposite the Academy of Medicine, where it was erected on a more beautiful pedestal. It was rededicated on October 20, 1934, with appropriate ceremonies, at which Dr. Sachs, President of the Academy, presided.*

The inscription on the old pedestal of this monument tells the story of his career:—

* There was an exhibit of mementos relating to Sims and the early history of the Woman's Hospital including instruments used by him, the first records of the hospital, and his literary contributions which were arranged through the courtesy of Dr. Malloch.

J. MARION SIMS, M.D., LL.D.

Born in South Carolina, 1813, died in New York City in 1883

Surgeon and Philanthropist.

Founder of the Woman's Hospital of the State of New York

His brilliant Achievements carried the fame of American
Surgery throughout the civilized world

In recognition of his services in the cause of science and mankind
He received the highest honors in the gift of his countrymen
And decorations from the governments of France, Portugal,
Spain, Belgium, and Italy.

And on the reverse:—

Presented to the City of New York
By
His professional friends, loving patients
And
Many Admirers
Throughout the World.

In his native state, South Carolina, in the capitol grounds has been erected in 1929 a very lovely monument with the inscription on the sides:—

"The first surgeon of the ages in ministry to women,
treating alike empress and slave,"
and
"He founded the science of gynecology, was in all
lands honored, and died with the benediction of
mankind."

On March 14, 1922 the newly constructed operating theatre in the present Woman's Hospital was opened and on this occasion a bronze memorial tablet was unveiled and dedicated to the memory of J. Marion Sims, the founder of the Woman's Hospital. Among the speakers was our beloved friend, Dr. Henry C. Coe. Coe in his remarks told how when a student at Harvard, Dr. William H. Baker, his teacher, brought a friend to his lecture whom he introduced as his former instructor and Attending Surgeon at the Woman's Hospital, Dr. J. Marion Sims, and asked him to talk to the students on a theme of his own choosing. He held the rapt attention of the class while he discoursed on "Cancer of the Uterus." In the words of Coe, "the bell rang for the close of the lecture and the Professor of Obstetrics, Dr. Reynolds, walked in to be greeted with cries of "Go on, go on," and the courteous gentleman of the old school promptly urged Dr. Sims to fill his hour and he did. What lecturer before or since could hold a class of restless students for two hours? He bowed to us, the door opened and he passed from our mortal vision forever. You remember when we used to read in Virgil and Homer how the Gods assumed the shapes of men and came down to talk to mortals. Their divinity was recognized only as they departed. So, in a dim way we felt as the door closed, that we had met face to face one who was endowed with the genius which made him one of the Immortals."

BEETHOVEN, FROM AN OTOLOGIST'S VIEWPOINT*

IRVING WILSON VOORHEES

New York

Fate never perpetrated a more malignant irony than that which sealed the hearing of the greatest of all makers of music. Fate, to be sure, seems to delight in making the way of genius hard; or one might think that Nature, when at rare intervals she endows a being with that matchless gift of imagination which enables him to penetrate to some of her deepest secrets, grows jealous, or fearful of her own handiwork and seeks to cancel the endowment. We need only think of Homer and Milton, blind; Keats gasping out his life when it was yet at its dawn; Heine on his bed of pain. It was of such things the German poet thought who wrote the brief, bitter line:

Schwer ist das Leben—Life is hard.

Born in the year 1770 everything about the life of Ludwig van Beethoven must be told in superlatives. In genius he was supreme; in eccentricities extreme; in his suffering, a very Prometheus—and like Prometheus, though tortured, indomitable; though broken, heroic; though vanquished, triumphant. But also like Prometheus, Beethoven did not fail to rage against his affliction. Some writers have pictured him as uncomplaining, accepting his deafness without heaviness of heart and with a song on his lips. A Pollyanna-Beethoven—absurd! Far from giving any such example of sweetness and light, the immortal Ludwig raged and fretted and dashed continually against the intangible bars of his captivity to silence. How little imagination they show who think that the man who could compose the Seventh Symphony could bear with equanimity the thought that he could never hear it!

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* Read before the Section of Historical and Cultural Medicine, January 8, 1936.

Beethoven was a man of great faith, possessed of indomitable will and at heart deeply religious. He was ever greatly concerned about his health, and he adverts to it time after time in letters to his physicians and to his intimate friends.

Beethoven's heredity was not of the best. His father was at least "moderately alcoholic," and used the little Ludwig rather roughly when in his cups,—this chiefly took the form of standing over the prodigy in threatening fashion and compelling him to practice at the piano. His grandmother came from a low estate and imbibed freely. There was also a tendency to tuberculosis in his mother. Whether this background suffices to explain his constant invalidism it is impossible to state, but his chief difficulty seems to have been a chronic inflammation of the intestines,—he suffered for years from colitis. He regarded this condition as possibly surgical, and for this reason remained in Vienna in order that he might have the services of the well-known surgeon Vering, among others, but he seems not to have had any operation, although he speaks of the tapping of the abdomen for the removal of ascitic fluid during the last days of his life as an "operation four times repeated." No surgeon, either then or now, would signify an abdominal paracentesis as an "operation" unless he did it for whatever "moral" effect it might have on the patient's condition.

Some physicians have thought that chronic intestinal toxemia may have been the indirect cause of Beethoven's deafness. Certain it is that he lamented his illness in no uncertain terms. In his Will dated October 10, 1802, he said:

> "I take my leave of Thee (Life)—very sad—dear hope—to be cured at least in a certain measure—like the leaves of autumn—it has faded—I am departing—even the high courage that upheld me often in the lovely days of summer—it has vanished—O Providence—let one day of pure joy be mine once more—Oh when, O God, shall I be able to feel it again in the temple of Nature and of men—Never?"

This hopelessness it may be said was nearer to the beginning than the end of his invalidism, for he lived fully twenty-five years thereafter.

He changed physicians almost as many times as he changed his abode,—there is a record of twenty-seven removals—and he became vexed with all of them, even Dr. Wegeler, who was, perhaps with von Breuning his most intimate friend. One of them he calls a *most perfect ass* because he advised cold sponge baths, when "the patient is sure that warm baths would be better." He complains of Dr. Vering because he used an embrocation upon his arms and blistered them so that piano playing was impossible.

The deafness seems to have become noticeable in 1799. The onset was slow, yet within one year subjective noises became very distressing, and by 1801, he had definitely given up elaborate plans he had made to "travel half way round the world," and decided to get what relief he could from Viennese physicians.

Writing to Dr. Wegeler, June 29, 1800, he says:

"My hearing has become weaker and weaker for the past three years—Frank (another physician?) wanted to restore my health by tonics, and my hearing by oil of almonds—my hearing remained impaired, my digestion in its former condition—my ears! they are ringing and singing night and day. I do think I spend a wretched life; for the last two years shunning all society, because I cannot bring myself to walk up to people and say, I am deaf. In any other profession this might pass; but in the one I have chosen, it is a wretched plight to be in.——To give you a notion of the extraordinary deafness, I must tell you that I am forced in a theatre to lean up close to the orchestra in order that I may understand the actor (singer?). I do not hear the high notes of instruments or singers at a certain distance; and it is astonishing that there are individuals who never notice it while conversing with me—I sometimes hear those who speak in a low voice; that is to say the sounds, but not the words."

He had enjoined secrecy upon everyone, and very few even among his faithful friends knew of the affliction until 1802. He had planned to be a conductor or a piano virtuoso, and had laid out very exalted schemes to enhance his name and fame; therefore, it is no wonder that the great blow fell heavily upon him. At this time he wrote the full details to Dr. Wegeler. His grief and anxiety could be no longer contained. There was always the horrible buzzing and whistling which otologists in these latter days always associate with nerve degeneration,—a condition that becomes

progressively worse and is beyond the reach of medical or surgical aid. He had frightful attacks of colitis and was "really miserable" during the entire winter of 1801. In dismay he wonders if there is any help for him in galvanism which is being talked about as a cure-all; for he has heard that a child in Berlin was restored from a condition of deaf-mutism through electricity,—this information from a physician(?) It is perhaps necessary to state that deaf-mutism is due either to a congenital absence of the auditory nerve, or some disease process which has destroyed both the auditory nerve cells and fibers. Nevertheless, in this supposedly enlightened age, the deaf and dumb are being "taken for a ride" in an airplane on the supposition that change of atmospheric pressure can make a difference in hearing capacity. But only the so-called "middle-ear catarrh" can even remotely be thus affected, and the relief, if any, must be only temporary. This in the presence of an auditory nerve somewhere near to normal.

Beethoven, apparently in a whimsical mood, told Charles Neate, English pianist, a "cock and bull" story to the effect that he, while rehearsing with a *primo tenore,* became so enraged by the singer's conduct that he threw himself upon the floor in a rage, and that when he arose he was surprised to find that he was deaf. All of this may have happened, except the deafness, because such a sudden attack could be brought about only through rupture of a blood vessel in the labyrinth,—so-called Ménière's disease, in which case the symptoms are so violent that the patient is very seriously ill. There is then great dizziness with sensations of whirling, so that the patient cannot stand, but must lie in bed, and nausea and vomiting are persistent and constant symptoms for from ten to fourteen days. None of these things are mentioned by the Maestro, and had they occurred, some note would have been taken of them by friends and companions during a fortnight of indisposition.

By the year 1810, the deafness was very thoroughly established and had long been noticed by the public. Writing to Wegeler in this year under date of May second, Beethoven says:

"I should be happy, perhaps the happiest of men, had not that demon taken possession of my ears. I have read somewhere that man should not part wilfully from this life whilst he could do one good deed; and but for this I should ere now have ceased to exist, and by my own hand too. Oh, life is so charming! but to me it is poisoned."

Not much has been said by his biographers concerning Beethoven's playing of the piano. It should not be overlooked that his musical career began with this instrument and may fairly be said to have ended with it. When he was about fifteen years of age he gave public performances which were well received, and his impecunious father had hopes of being able to live from the efforts of his talented son; but about this time, 1785, the son was appointed by the Elector, Max Franz, brother of Emperor Joseph II, organist to the electoral chapel, a post obtained for him by a patron of the arts, Count von Waldstein. He had received lessons on the organ from Van der Eder, court organist, and practised a great deal, becoming very fond of this instrument. He now received permission from the Elector, Franz, to visit Vienna, and he spent the winter of 1786-1787 in that great musical center. It was at this time that he made the acquaintance of Mozart who was then the leading light in "Harmony," and Beethoven was, of course, invited to play for Mozart. He was given a theme which he extemporized upon so gracefully that the older man was led to exclaim: "This youth will some day make a noise in the world."

Although his mentors intended that he should study with "Papa" Haydn, he seems not to have liked this master, and to his last days said that he had never gotten anything from Haydn; but Mozart became his great ideal, and he studied the works of the great harmonist until he knew them by heart. Unfortunately, however, Beethoven did not remain in Vienna very long on this first visit. He returned to Bonn where he worked with the piano, organ and violin under Pfeiffer who seems to have been a really great teacher, music director and oboist; and, although Beethoven has often been accused of ingratitude and there are sufficient grounds for this feeling, he never forgot Pfeiffer, and when circumstances permitted, he sent money to his old friend through M. Simrock of Bonn.

In 1792, Beethoven at 22, returned to Vienna and made it his home. Mozart had been dead for a year but his influence lived in the mind and heart of everyone, especially in Beethoven's. Vienna, the home of the Muses, appealed deeply to the young man's love of life and art, and he declared, "Here will I stay and not return to Bonn, even though the Elector should cut off my pension."

Beethoven was always associated with physicians either socially or intellectually or medically. One of his first sponsors in Vienna was the distinguished Dr. Van Swieten, physician in ordinary to Empress Maria Theresa, a man of great personal charm and culture who brought to his home every artist of any importance living in Vienna in that day. The Van Swieten home was a center for the playing of the compositions of Händel, Sebastian Bach, and the Italian masters, "performed with a full band." The doctor had an insatiable appetite for music and pressed Beethoven to perform for him after the others had gone, often far into the night, a half dozen or so fugues of Bach as a goodnight blessing! Through the Van Swietens, Beethoven met a number of important people, among them Prince Karl von Lichnowsky who became his industrious pupil, paying for his lessons a truly princely sum, and settling upon Beethoven six hundred florins a year which was to continue until the composer should receive a permanent appointment. The Princess, Christiane, by birth, Countess of Thun, seems also to have taken a fine fancy to Beethoven whom she ultimately succeeded in spoiling so completely that he turned upon his benefactor and precipitated one of the most disgraceful scenes recorded in musical annals. It so happened that a number of Prince Lichnowsky's friends were dining at the Palace, and after the good wine had stimulated fellowship to the point of intimacy, the Prince called upon Beethoven to entertain the guests by his playing. This the ingrate refused to do point blank, saying that "he was no cheap performer obliged to do his stunt for the sake of bed and board," and when the Prince urged him a little too forcibly, Beethoven picked up a chair and would have fractured the Prince's skull, had not some one intervened and

taken the chair away from the crazed artist. Of course Beethoven left the house for all time, but he was forgiven, nevertheless, by the Prince, although the old intimacy was never reestablished, as indeed it could not have been.

Many anecdotes are told concerning Beethoven's eccentricities. Early in life he bought a horse in order that he might ride for exercise, but he became so engrossed in his music that he forgot all about the horse and the poor animal starved to death. Then he took to walking, but his "walk" became a run over the ramparts of Vienna, during which he shouted, talked to himself, sang melodies and gesticulated wildly. One day his gestures so frightened a team of oxen (sic) that they ran away. He seems never to have been aware of the weather, but would go for one of his foot excursions in a pouring rain, and then came into the house shaking himself like a dog to the utter discomfiture of the inhabitants.

The artist, Höfel, was eager to paint a portrait of the master, and he agreed to a sitting, but after five minutes of this, he was seized with a sudden inspiration, rushed to the piano and improvised, completely oblivious of the circumstances. The portrait seems not to have been completed at any further sitting.

His friend and pupil, Ries, relates that returning with Beethoven from a walk one day, the latter rushed to the piano without removing hat or coat and played for an hour without stopping, but suddenly remembering the presence of Ries, said, "There won't be any lesson today," and went on with his improvisations.

When praised, Beethoven laughed boisterously and "ragged" his hearers by calling them idiots and making other uncomplimentary remarks.

In 1808, December 22nd, while conducting his Fifth Symphony for the first time, he stopped short, upbraided the orchestra for its stupidity, and in his excitement knocked over the candles which had been placed upon the

piano,—this, accidentally, one may surmise. Nevertheless, he would at times accept criticism from his inferiors.—— After his deafness had become complete, while he was rehearsing the Quartet in E Flat with four players, some one suggested leaving out the *mino vivace*. He watched for a few moments, agreed that this was good advice, and then crossed this part of the work from the score. But as a rule he was a law unto himself.——A lesser composer once told him that it was wrong to compose in violation of the principles of harmony and that no one could get away with it. "*You* can't, but *I* can," was his response.

Beethoven was certainly hard to live with. Servants would not remain with him because he despised them. "I am in despair," he says, "at being condemned by my deafness to spend the greater part of my life with this most abject class of person, and to be in some sense dependent on them." He fell out constantly even with his best friends, but many of them swallowed the insults and contumely which he heaped upon them. However, to his credit, he would often voluntarily write the most abject apologies in an effort to smooth out his uproarious conduct.

But to offset all of these grosser abnormalities there was a lovely spirit of devotion to his brother's child whom he took away from the mother after the father's death. In it we see all of the pathos of the master's life,—his celibacy, his unrequited love, his childlessness, his longing for companionship,—all of these gaps in his life which he was attempting to fill by an obtrusive affection for his nephew. But this merely succeeded in spoiling the boy, just as the Lichnowskys had spoiled Beethoven in his young manhood. This boy seems to have been headstrong, ungrateful and even resentful of his Uncle's attempted guidance; for he brought the hoary head down to the grave in sorrow because of his misdoings.

Beethoven at heart was deeply religious, although he never seems to have said much about it. He was a Catholic who neglected his church chiefly because he was not "denominational." He was essentially a Deist. On his

writing table he always kept two inscriptions said to have been taken from the temple of Isis: I. I am that which is. I am all that is, all that was, and all that shall be,—No mortal man hath my veil uplifted! II. He is One, self-existent, and to that One all things owe their existence.

Among his literary effects were found also two prayers. Whether he copied them from the writings of some other man or whether he wrote them himself, they are, indeed, beautiful:

"O God, Thou art the true, eternal, blessed, unchangeable light of all time and space. Thy wisdom apprehends thousands and still thousands of laws, and yet Thou ever actest of Thy free-will and to Thy honor. Thou wast before all. — To Thee is due praise and adoration."

And again:

"Spirit of spirits, who spreading Thyself through all space and who through endless time art raised high above all limits of upward struggling thought, from riot didst Thou command beautiful order to arise. Before the Heavens were, Thou wast, and before systems rolled above and below us. Before the earth swam in heavenly ether, Thou alone wast, until through Thy secret love that which was *not* sprang into being, and gratefully sang praises to Thee. What moved Thee to manifest Thy power and boundless goodness? Wisdom beyond measure! How was it first manifested? Oh! Direct my mind! Oh! raise it up from this grievous depth."

About 400 note-books were also among his effects, containing conversations written by others, and also some of his own thoughts. But, among his doctors was an Italian, Bertolini, who in 1831, contracted cholera and ordered all of the many letters he had received from Beethoven to be burned. Thus, possibly, we have lost some valuable data regarding the chronic invalidism as well as the opinions and reflections which the Master was wont to interlineate even in the most casual note to an acquaintance. Of the note-books given by Dr. von Breuning to Beethoven's biographer, Schindler,—137 are in the Berlin Library. In one of them, reverting to his deafness he summons courage to aid him in his need:

"I will blunt the sword of Fate; it shall not utterly destroy me."

In 1814, he played the piano part to his trio in B major, opus 97, which marked his farewell to the public in so far as that instrument was concerned. He was now quite deaf. Ten years later, in 1824, he was present at the Vienna Academy of Music when the Kyrie, Credo, Agnus Dei and Dona,—all from the Missa Solemnis, were played before a large and distinguished audience. He stood at the right of the conductor, Umlauf, paying attention to the beat, but he did not hear anything of the performance, and he noticed the vociferous applause only when a singer, Caroline Unger, caught his sleeve and swung him around toward the audience. Nevertheless, much of his work following the hundredth opus was composed during this clouded period, among others, the 7th and 8th symphonies; the song folio "To the Distant Sweetheart"; and the quartettes; a number of sonatas for piano; the Missa Solemnis and the ninth symphony. He had discussed with Malzel, inventor of the metronome, various hearing contrivances and experimented with some in the hope that it might be possible for him again to conduct an orchestra, but none of these things helped him, which goes to prove that his deafness was of the inner ear type.

Shortly after the incident recited above, Beethoven entered upon the period of his final illness. In 1824, he was besieged by the fear that he would die from apoplexy. Writing under date of August 1st to Dr. Bach: "I believe that sooner or later I cannot escape an apoplectic fit, such as my upright grandfather had and to whom I bear a likeness." There was probably high blood pressure, for he spat blood and had several nosebleeds. The following year he wrote to his nephew, for whom he was standing sponsor as already mentioned: "Death won't allow me a very long respite."

The autumn of 1826 marked the beginning of the end. Beethoven had been spending some time in Gneissendorf, a health resort in Austria, but desiring to return to Vienna once more, he started his journey on a frosty December day sitting on an ordinary milk cart which he described to Dr. Wawruch as "the most miserable vehicle of the devil." The

journey was broken by a night at a village inn where he slept in an unheated room under damp bedclothing. After midnight he developed a severe chill and chest pains. The next day he arrived in Vienna with a definite pneumonia, which subsided, however, by crisis on the 7th day, but a complication arose in the form of abdominal dropsy (ascites), the result of an unrecognized disease of the liver (interstitial hepatitis) which surely must have been present for months. Toward the end of December (the 20th), the distention became so great that it became necessary to introduce a needle through the abdominal wall (paracentesis) for the removal of fluid. A large quantity of serous exudate came away and there was much relief. This procedure had to be repeated, however, on January 8th, and again on February 2nd and 27th, 1827. After the second puncture Beethoven's unfailing sense of humor led him to remark to Professor Siebert: "You seem to me as if you were Moses who smote the rock."

At this time Beethoven seems to have thought himself to be in dire straits financially, although after his death several bank shares were found among his effects, as well as other salable articles. Is it not possible that in his state of forgetfulness which had always been a characteristic, a condition made worse by disease, he had quite forgotten about the "hidden treasure"? In any case he wrote on March 14th, two weeks before his death, to his friend Moscheles: "I have to fight with a hard lot; nevertheless, I subject myself to the dispositions of Fate, and I pray God that He may direct my fate so that ere my death ensues I shall not suffer from want." Moscheles then interceded with the London Philharmonic Society which had already purchased several of his works, and that organization sent him 100 pounds. It was not used, and after his death a question arose as to whether it should not be returned, but his executors declared against it and the money was kept as a part of his estate. With the gift a new hope came into Beethoven's mind, and the old creative instinct was once more aflame as shown by his letter of thanks eight days before he died; "I pledge myself to the Society, as a token

of my warmest gratitude, either to compose a new symphony, the scheme of which already lies on my desk, or a new overture, or something else, as desired by the Society, if the Almighty will soon give me health."

Beethoven died on March 25, 1827, only a little over 57 years of age. There is cause for speculation as to what may have caused his life-long ill health. Although his forbears had been somewhat alcoholic, he, himself is said to have been abstemious until a few weeks before death when his diet was chiefly eggs, which he washed down with quantities of wine! Perhaps his medical advisers seeing that he could not possibly recover allowed him to have anything he asked for. There is some authority for the supposition that he may have unwittingly contracted syphilis. This disease would account both for his chronic invalidism and his deafness. No one can be sure about this, but his deafness was certainly of the type seen in syphilis, although in fairness one should say that other toxic conditions give similar symptoms. It is not necessary that in acquiring this disease he should have transgressed moral laws. Venereal disease was prevalent in Europe in those days, in fact still is, and it would have been easy to have acquired the disorder in a perfectly innocent way. Not infrequently physicians and nurses become infected from patients, and it is reasonable to state that other persons may become likewise infected. It was nearly one hundred years later before we had anything like a definite diagnostic test, so that the number of "missed" cases must have been enormous. His cirrhosis of the liver may have been due to the toxins from his intestinal tract, if it were not due either to the racial poisons, alcohol or syphilis.

Unfortunately an autopsy was not performed until some 48 hours after death. In those days the technique of the mortuary was far from perfect, and histology was virtually unknown. Moreover, post-mortem changes made judgment of pre-existing disease virtually impossible. Dr. Johann Wagner reported that he found "the auditory nerves shrivelled and marrowless, the arteries running along them

stretched as if over a crow-quill, and knotty. The left auditory nerve, which was much thinner than the other, ran with three very narrow grayish streaks; the right, with a thicker white one out of the fourth cavity of the brain. The circumvolutions of the brain which was soft and watery (post-mortem change) appeared twice as deep as usual, and much more numerous."

As to the liver Wagner writes: "It was shrunken to half its ordinary size (chronic interstitial hepatitis), as solid as tanned leather and was greenish-blue. Its surface was covered with many irregularities (hop-nailed liver), and it contained numerous, hard nodules the size of a bean. All blood vessels in these nodules were constricted and thickened. The cartilage of the auricle was large and regular in form; the scaphoid (boatlike) depression and particularly its crevice, were abnormally wide and one and one-half times as deep as usual. The eminences and depressions protruded greatly."

In 1863, thirty-six years after Beethoven's death, an exhumation took place when a successful plaster cast was made by a Dr. Wittman, assistant at the Vienna Anatomic Institute. Anatomically, Beethoven's skull was not regular; particularly as to the "strongly developed frontal bone and upper part of the orbit, and the very large orbital cavities."

In old Vienna, on the Ringstrasse, one sees the Beethoven *Denkmal,* a beautiful sculpture representing the composer, seated, in a dressing gown, his hands folded across his left thigh, and his head turned slightly toward the right as if listening to the voices of Nature. At the right of the pedestal is a female figure, an angel holding aloft a wreath or baccalaureate emblem; at the left a male figure with the hands at the back, showing the strength of man fettered by invisible hands. At the foot of the pedestal and between the two above-mentioned figures are images of five children, —two on each side, the central one holding a harp. To my way of thinking this is the most beautiful monument in a city so crowded with the evidences of culture.

Out in the *Zentral Friedhof,* Beethoven's remains were interred, and the spot is marked by a highly-artistic, marble obelisk. Near by is the grave of Schubert who asked to be buried "close to Beethoven." In the vicinity is the so-called Mozart stone, but the burial place of Mozart, like that of Moses, is unknown. He was, according to rumor, put into an unmarked grave, the whereabouts of which were forgotten with the passing years. Thus Vienna, the city which they all loved, holds the mortal remains of these great masters of music,—Beethoven, Schubert and Mozart.

LIBRARY NOTES

New Volume in Historical Series

The Library Publication Fund Committee announces that No. 5 in the "History of Medicine Series issued under the Auspices of the Library of the New York Academy of Medicine" has appeared. The author, a Fellow of the Academy, is Dr. Robert H. Halsey, and his work, an illustrated brochure of 58 pages, is entitled *How the President, Thomas Jefferson, and Dr. Benjamin Waterhouse, Established Vaccination as a Public Health Procedure.* Copies may be ordered for a dollar apiece from the Librarian on making out a cheque payable to the author.

Copies of other volumes of the Series may be obtained also. Last year *Andreae Vesalii Icones Anatomicae* was published. It is an atlas containing all the woodcut illustrations of the works of Vesal, consisting, in almost every case, of fresh impressions taken from the original woodblocks cut in 1543 and 1555. The price is $122.50. In 1930 was issued: Hieronymus Fracastorius, *De Contagione . . . Liber iii . . .* [*1546*]. This consists of the Latin text, with English translation and notes by Wilmer Cave Wright, price $3.00.

AN EXHIBITION OF BOOKS ILLUSTRATING THE GROWTH OF OUR KNOWLEDGE OF THE RESPIRATORY TRACT AND ITS DISEASES

Prepared by FRANK B. BERRY, ISRAEL RAPPAPORT and GERTRUDE L. ANNAN

CASES 1-5

From Hippocrates to Laennec and Louis

Prepared by G. L. ANNAN

1. HIPPOCRATES, b. ca. 460 B. C.

   Octoginta Volumina . . .

   Rome, Franciscus Minitius Calvus, 1525. Opened at p. CCCCVII.

   First printed edition of Hippocrates's collected works, showing his description of phthisis. It has been noted that this description with a few changes and additions might well be included in any modern text-book.

2. ARETAEUS (CAPPADOX). 2nd. cent.

   Libri septem nunc primum e Tenebris eruti a Ivnio Pavlo Crasso . . .

   Venice, Junta, 1552. Opened at fo. 6r.

   A classic account of pneumonia. As a clinician Aretaeus ranks next to Hippocrates. His work is an important source for the teachings of the Pneumatic School.

3. ORIBASIUS SARDIANUS. 4th cent.

   Synopseos ad Evstathivm Filivm . . .

   Venice, Paulus Manutius, 1554. Opened at fo. 165r.

   An early account of emphysema. The writings of Oribasius contain little that is original, but are carefully compiled and are valuable in preserving the knowledge of his predecessors. This "Synopseos" is an epitome of his large encyclopaedia. It was especially prepared for the use of his son, Eustathius.

4. CAELIUS AURELIANUS. 5th cent.

   De Morbis acutis & chronicis, libri VIII . . .

   Amsterdam, Wetsteniana, 1709. Opened at p. 429.

   An early description of asthma. The author has been called the greatest Latin medical writer after Celsus (1st. cent.). The first complete edition of this work was published in Lyons in 1566.

5. AVENZOAR (Abu-Marwan 'Abd-al Malik ibn Zuhr). d. 1162.

   Liber Theiçir . . .

   Venice, Bonetus Locatellus for Octavianus Scotus, 1496. Opened at fo. 18r, col. 1, line 6.

This passage gives the author's recommendation of the use of goat's milk in phthisis and tracheotomy. Avenzoar was an eminent Moslem physician who had the courage to question the views of Galen.

6. LANFRANC DE MILAN. d. ca. 1306.

En cyrurgie.

Lyons, Jehan de la Fontayne, 1490. Opened at fo. f_2r, col. 1.

An early record of an operation for empyema by the founder of French surgery. A native of Milan, Lanfranc spent most of his life in Lyons.

7. GUY DE CHAULIAC, d. 1368.

Inventorie or y^e^ Collectorye in cirurgicale parte of Medicene . . .

Eng. MS. ca. 1400. Opened at fo. 152r, Bk. 3, Doct. 2, Chapt. 5.

A description of empyema by the most eminent French surgeon of his time. This is one of the finest early medical manuscripts in English. It came to the Academy with the rest of the library of Dr. E. C. Streeter.

8. DA VINCI, LEONARDO. 1452-1519.

Quaderni d'Anatomia. Ventun Fogli della Royal Library di Windsor . . .

Christiania, Dybwad, 1914. Opened at vol. 4, fo. 3r.

A small sketch of the lung by the celebrated painter and anatomist. A translation of his notations reads: "This is the lung in its chest. It is questioned where the lung is more cooled or more heated, and the same is searched for in the heart. It is to be searched, if the wall of the heart, interposed between its two ventricles, is thinner or denser in the lengthening or in the shortening of the heart, or, you may say, in the dilation or in the contraction of the heart: It is judged that in the dilation it increases capacity, and the right ventricle draws blood from the liver, and the left ventricle in such time draws blood from the right one, etc. As many times as the pulse beats, as many are the times that the heart dilates and contracts itself. The lung increases and decreases continually in every direction, but more downwards, because it is more useful for expelling the food out of the stomach."

9. FRACASTORIUS, HIERONYMUS. 1478-1553.

De Sympathia et Antipathia Rervm . . .

Venice, heirs of Luc-Antonio Junta, 1546. Opened at fo. 46v.

First edition of his celebrated work on contagion. This chapter entitled "De Phthisis Contagiosa" shows that he recognized the contagiousness of pulmonary tuberculosis. He also noted that living with such patients was the chief cause of the disease.

10. SERVETUS VILLANOVANUS, MICHAEL. 1509?-1553.

Christianismi Restitvtio . . . 1553.

[Nuremberg, Rau for C. Gottlieb von Murr, 1790]. Opened at p. 170.

For years this has been considered the first description of the lesser circulation of the blood, but recently claims have been made that Ibn Nafis

described the lesser circulation in the thirteenth century. Servetus was condemned to death for the "heresies" in the *Christianismi Restitvtio,* and most of the copies of the original edition were burned with him. Even this reprint of 1790 is rare and valuable.

11. Paracelsus, Aureolus Philippus Theophrastus [Bombastus ab Hohenheim]. 1493-1541.

Von der Bergsucht und anderen Bergkrankheiten.

In his: Sämtliche Werke, herausgegeben von Karl Sudhoff, *9:* 461-544, 1925. Opened at p. 463.

A modern edition of the first separate tract on miners' phthisis, originally published in 1567. A reference to the disease was made by Agricola in 1556, but he did not write an extensive description of it. Paracelsus was the revolutionary who first dared scorn the writings of the ancients.

12. Vesalius, Andreas. 1514-1564.

De Humani Corporis Fabrica . . .

Basel, Joannes Oporinus, 1543. Opened at p. 658.

First edition of the epochal work of Vesalius, "Father of anatomy." On the page referred to he shows how he induced artificial respiration in animals.

13. Paré, Ambroise. 1510-1590.

The Workes of that famous Chirurgion . . .

London, T. Cotes and R. Young, 1634. Opened at pp. 298-9.

The treatment of empyema by drainage and lavage, related by the greatest figure in the history of surgery, showing a woodcut of the cautery and plate to be used. This is the first English edition. The first French edition appeared in 1575.

14. Mayow, John. 1643-1679.

Tractatus quinque Medico-physici . . .

Oxford, J. Crosly, 1674. Opened at pp. 300-1.

The first account of the substance now known as oxygen. Mayow was a chemist and physiologist of genius, and this work ranks with the best of English medical classics.

15. Sylvius, Franciscus [de la Boë]. 1614-1672.

Opera medica . . .

Amsterdam, D. Elsevir & A. Wolfgang, 1679. Opened at p. 689.

A tract on phthisis by one of the earliest teachers to introduce bedside teaching into the medical curriculum. He has been called an expositor rather than an investigator, but his work shows that he was not without original ideas. He found tubercles in the lungs at autopsy and recognized the tuberculous nature of diseased lymphatic glands throughout the body, and associated them with consumption. He seems to have been the first to do so. This is the first edition of his collected works.

16. Willis, Thomas. 1621-1675.

Opera omnia . . .

Lyons, J. A. Huguetan, 1681. Opened at vol. 2, p. 1 of the 3rd ser. of pagination.

"The best anatomical description of the lungs so far published." (Lawrason Brown). Willis is best remembered for his exact account of the nervous system and the description of the circle of Willis which bears his name.

17. Hooke, Robert. 1635-1703.

An Account of an Experiment made by Mr. Hook, of preserving Animals alive by blowing into their Lungs with Bellows.

In: Philosophical Trans. Roy. Soc. London . . . abridged, *1:* 194-5, 1809.

This experiment, described by Hooke in 1667, had already been performed by Vesalius. Hooke showed that the essential feature of respiration is not in its intrinsic movements, but in certain blood changes in the lungs.

18. Malpighi, Marcello. 1628-1694.

Opera omnia . . .

London, R. Scott, 1686. Opened at pt. 2, p. 134.

Malpighi, celebrated anatomist and greatest of microscopists, established that the bronchi terminated in minute air spaces.

19. Morton, Richard. 1637-1698.

Phthisiologia seu Exercitationes de Phthisi . . .

London, S. Smith, 1689.

The most pretentious book on the subject written up to that time. According to Flick, "Clinically, it is the best presentation of the symptomatology of tuberculosis that has been written." Morton was both physician and minister. He was a Fellow of the Royal College of Physicians.

20. Floyer, (Sir) John. 1649-1734.

A Treatise of the Asthma . . .

London, R. Wilkin, & W. & J. Innys, 1726. Opened at p. 203.

The first account derived by dissection of the changes in the lungs now called emphysema. This was first published in 1698. Floyer is remembered for his work on the pulse and on the benefits of cold bathing.

21. Auenbrugger, Leopold. 1722-1809.

Inventum novum ex Percussione Thoracis humani . . .

In: de Wasserberg, F. X. Fasciculus primus Operum minorum Medicorum . . . Vienna, 1775, *1:* 316-361.

First published in 1761, this "immortal" contains the first record of the use of immediate percussion of the chest in diagnosis. The importance

of Auenbrugger's work was not recognized until Corvisart published his translation of it in 1808.

22. Morgagni, Giovanni Battista. 1682-1771.

The Seats and Causes of Diseases . . .

London, A. Millar, T. Cadell, Johnson & Payne, 1769. Opened at vol. 1, p. 557.

This passage gives a description of the post-mortem appearance of consolidated lung, the texture being like that of solid flesh, written by the founder of modern pathology.

23. Lavoisier, Antoine Laurent. 1743-1794.

Mémoire sur la nature du principe qui se combine avec les métaux pendant leur calcination, & qui en augmente le poids.

In: Hist. de l'Acad. Roy. des Sci., 1775, Paris, 1778, pp. 520-526.

Lavoisier discovered the true nature of interchange of gases in the lungs. This is his first report on the subject. This great chemist lost his life on the guillotine during the French Revolution. This volume was lent through the courtesy of the Library of Columbia University.

24. Stark, William. 1740-1770.

The Works of . . . consisting of clinical and anatomical Observations . . .

London, J. Johnson, 1788. Opened at p. 19.

This posthumously published work contains valuable studies of the cavities and the cause of hemoptysis. It was of particular importance in the advancement of the knowledge of tuberculosis in England. Before this appeared in print much of the material had been plagiarized from the manuscript by Thomas Reid in his *Essay on . . . Phthisis pulmonalis*, 1782.

25. Baillie, Matthew. 1761-1823.

The morbid Anatomy of some of the most important Parts of the human Body.

London, J. Johnson & G. Nicol, 1793. Opened at p. 52.

The first accurate description of hepatization of the lungs in pneumonia. Baillie was physician to George III, and carried on an extensive practice.

26. Beddoes, Thomas. 1760-1808, and Watt, James. 1736-1819.

Considerations on the medicinal Use, and on the Production of factitious Airs.

3. ed. Bristol, Bulgin & Rosser for J. Johnson, 1796.

These essays advance the important therapeutic concept of treating certain diseases by placing the patient in a "factitious atmosphere." This general plan of treating respiratory troubles by inhalations of different gases is now standardized as pneumo-therapy. Watt, the celebrated engineer, constructed the apparatus for this purpose. Beddoes founded the Pneumatic Institute at Clifton.

27. SPALLANZANI, LAZARO. 1729-1799.

Memoirs on Respiration.

London, G. & J. Robinson, 1804. Opened at p. 352.

Spallanzani was the first to note that the tissues consume oxygen and produce carbon dioxide. This eminent investigator and physiologist died before this was published in 1803.

28. BAYLE, GASPARD LAURENT. 1774-1816.

Researches on pulmonary Phthisis.

Liverpool, Longman, Hurst, Rees, Orme, and Brown, 1815.

The basis of Laennec's and other subsequent work. Bayle first described the coarse characters of tubercle and its identity with the pulmonary granular and other varieties of tuberculosis. His *Recherches* appeared originally in 1810.

29. LAENNEC, RÉNÉ THÉOPHILE HYACINTHE. 1781-1826.

De l'auscultation médiate . . .

Paris, J. A. Brosson & J. S. Chaudé, 1819.

First edition of the epochal work which is the foundation stone of modern knowledge of diseases of the chest and of their diagnosis by mediate auscultation. First to describe and differentiate bronchiectasis, pneumothorax, hemorrhagic pleurisy, pulmonary gangrene, infarct and emphysema, esophagitis, subdeltoid bursa, etc. He was undoubtedly the greatest teacher of pulmonary tuberculosis.

30. LOUIS, PIERRE CHARLES ALEXANDRE. 1787-1872.

Recherches anatomico-pathologiques sur la phthisie.

Paris, Gabon, 1825.

Louis's contribution was the definite and permanent establishment of the facts which Bayle and Laennec had brought to light. He also placed the symptoms of tuberculosis in scientific relationship with the pathology of the disease. He worked for some years with Chomel at the Hôpital de la Charité.

CASE 6

Milestones on the Road to our present Knowledge of Tuberculosis

(*Nineteenth and early Twentieth Centuries*)

Prepared by I. RAPPAPORT

31. VILLEMIN, JEAN ANTOINE. 1827-1892.

Études sur la tuberculose . . .

Paris, Baillière, 1868. Opened at p. 528.

Villemin achieved an undying reputation by his proof that tuberculosis is a specific infection, due to an invisible, inoculable agent and transmissible by inoculation from man to lower animals. He was a professor at Val-de-Grâce.

32. Parrot, Joseph Marie Jules. 1829-1883.

[Le résultat des recherches sur les relations qui existent entre les lésions des poumons et celles des ganglions trachéo-bronchiques.]

In: Comptes rendus des Séances et Mém. de la Soc. de Biologie, 6.s. *3:* 308-309, 1876.

This reports his discovery of the nature and distribution of the primary lesion of the lung. He was professor of diseases of children in the Paris Faculté.

33. Koch, Robert, 1843-1910.

Die Aetiologie der Tuberculose.

In: Berl. klin. Wochenschr., *19:* 221-230, 1882.

The report of the discovery of the tubercle bacillus by Robert Koch, one of the greatest of German scientists.

34. Forlanini, Carlo. 1847-1918.

A Contribusione della Terapia chirurgica della Tisi. — Ablazione del polmone? — Pneumotorace artificiale?

In: Gazzetta degli Ospitali, *3:* 537-539, 1882.

The report of his first attempt to treat phthisis by artificial pneumothorax. He was the first to introduce this method of treatment. He was the director of the medical clinic at the Royal University, Pavia.

35. Adirondack Cottage Sanitarium for the Treatment of Pulmonary Diseases.

First Annual Report.

Saranac Lake, N. Y., 1886.

The beginning of a new era in the treatment of tuberculosis in this country. Of Trudeau Osler wrote in the twenty-fifth Annual Report of the Sanitarium, "A triumph of optimism. This shows what a badly crippled man may do single-handed, once let him gain the confidence of his brethren, medical and lay." This copy of the report was lent through the courtesy of the Army Medical Library.

36. Brehmer, Gustav Adolf Robert Herrmann. 1826-1899.

Die Therapie der chronischen Lungenschwindsucht.

Wiesbaden, Bergmann, 1887.

The author was the founder in 1859 of the first sanatorium for pulmonary tuberculosis. He demonstrated that pulmonary tuberculosis was curable.

37. Bard, Louis. 1857-1930.

Formes cliniques de la tuberculose pulmonaire, classification et description sommaire.

Genève, Kündig, 1901.

Bard is known for his clinical classification of pulmonary tuberculosis, which is still the best. He was professor of hygiene at Lyons and of clinical medicine at Geneva.

38. National Association for the Study and Prevention of Tuberculosis.

Transactions of the first Annual Meeting, Washington, D. C., May 18th and 19th, 1905.

New York, Irving pr., 1906.

The first report of the organization which has done so much in the fight against tuberculosis.

39. von Pirquet von Cesenatico, Clemens Peter. 1874-1929.

Allergie.

In: Ergebnisse d. Inn. Med. und Kinderh., *1:* 420-464, 1908.

The author was the first to introduce the concept of allergy in tuberculosis. He devoted his life to the study of human nutrition and was responsible for the development of the children's hospital at the University, Vienna.

40. Ghon, Anthon, 1866-

The Primary Lung Focus of Tuberculosis in Children . . .

London, Churchill, 1916.

The most valuable work on this subject. Ghon served as professor of pathological anatomy in Vienna and Prague.

41. Ranke, Karl Ernst. 1870-1926.

Primäraffekt, sekundäre und tertiäre Stadien der Lungentuberkulose, auf Grund von histologischen Untersuchungen der Lymphdrüsen der Lungenpforte.

In: Deutsches Arch. f. klin. Med., *119:* 201-269, 1916.

Classification of tuberculosis based for the first time on the correlation of pathology and immunology. Ranke practised as a lung specialist in Munich, where he served also as professor of internal medicine.

42. Fowler, (Sir) James Kingston. 1851-1934.

Pulmonary Tuberculosis.

London, Macmillan, 1921. Opened at pp. 120-1.

First description of infraclavicular primary infiltration and of the way tuberculosis spreads along the bronchi. Fowler was Consulting Physician to Brompton Hospital. He made important contributions in the field of medical education in England.

43. CALMETTE, ALBERT. 1863-1933.

L'infection bacillaire et la tuberculose chez l'homme et chez les animaux . . . 3. ed. Paris, Masson, 1928.

The most important work on the bacteriology and the serology of tuberculosis. Calmette was one of the directors of the Paris Pasteur Institute.

CASE 7

Works on the Pathology and Physiology of Respiration, of the Nineteenth and early Twentieth Centuries

Prepared by I. RAPPAPORT

44. FLOURENS, MARIE JEAN PIERRE. 1794-1867.

Recherches expérimentales sur les propriétés et les fonctions du système nerveux, dans les animaux vertébrés.

Paris, Crevot, 1824.

Flourens discovered the "vital node," the bilateral center of respiration in the medulla oblongata, a lesion of which causes asphyxia. He was professor of anatomy at the University of Paris.

45. JOERG, EDUARD. 1808-1878.

* De Morbo Pulmonum Organico, ex Respiratione Neonatorum imperfecta Orto.

Læipzig, Niesii, 1832.

The first description of pulmonary atelectasis and its significance in determining whether or not air has entered the lungs of a dead infant. Joerg's later work was concerned with tropical diseases. He spent some time in Cuba, and later on in Oleona, Pennsylvania.

46. MENDELSSOHN, ARNOLDUS. 1817-

Der Mechanismus der Respiration und Cirkulation oder das explicirte Wesen der Lungenhyperämien . . .

Berlin, Behrs, 1845.

Mendelssohn was the first advocate of the idea that atelectasis is of great importance in the origin of pneumonia.

47. BERT, PAUL. 1830-1866.

Leçons sur la physiologie comparée de la respiration . . .

Paris, Baillière, 1870.

This marks the beginning of the modern science of the physiology of respiration. The author was professor of physiology at the Sorbonne.

48. BOHR, CHRISTIAN. 1855-1911.

Ueber die Lungenathmung.

In: Skandinavisches Arch. f. Phys., *2:* 236-268, 1891.

First modern studies of the exchange of gases in respiration. Bohr was connected with the physiological laboratory at the University of Copenhagen.

49. PASTEUR, WILLIAM.

The Bradshaw Lecture on massive Collapse of the Lung.

In: Lancet, *2:* 1351-1355, 1908.

First description of massive collapse of the lungs. During the late war Pasteur served as Consultant Physician to the British Armies in France and later as Consultant Physician to the Middlesex Hospital.

50. LAGUESSE, GUSTAVE EDOUARD. 1861-1927, and D'HARDIVILLER, A.

L'Acinus pulmonaire chez l'homme adulte (d'après une reconstitution plastique en cire). Travaux et Mémoires de l'Université de Lille, Atlas no. 4.

Lille, l'Université, 1910. Opened at pl. 2.

One of the foremost studies of the anatomy of the lung. Laguesse was professor of histology at Lille. D'Hardiviller, his former assistant, left Lille for Amiens, where for a time he taught histology. He practises medicine there at the present time.

51. HENDERSON, LAWRENCE JOSEPH, 1878-

Blood, a study in general Physiology.

New Haven, Yale univ. pr., 1928.

Most important book written on the subject of the function of respiration. The author is professor of biological chemistry at Harvard University.

CASE 8

Important Contributions to our Knowledge of Pneumonia, Hay-fever, Asthma, and other Diseases of the Respiratory Tract

Prepared by I. RAPPAPORT

52. STOKES, WILLIAM. 1804-1878.

A Treatise on the Diagnosis and Treatment of Diseases of the Chest.

Phila., Waldie, 1837.

The greatest nineteenth century English treatise on diseases of the lung. It includes the first observation on the beneficial effect of pneumothorax in phthisis. Its discussion of emphysema and bronchiectasis is still unsurpassed. Stokes was Regius professor of medicine in Dublin University. For a long time he was the undoubted head of his profession in Ireland.

53. FLINT, AUSTIN. 1812-1886.

Physical Exploration and Diagnosis of Diseases affecting the respiratory Organs. . .

Phila., Blanchard & Lea, 1856. Opened at p. 197.

Flint was the best clinical student of pulmonary tuberculosis that America had so far produced. He added the term broncho-vesicular breathing. One of the most eminent American practitioners of his century, he was President of The New York Academy of Medicine in 1873.

54. FRAENKEL, ALBERT. 1848-1916.

Spezielle Pathologie und Therapie der Lungenkrankheiten . . .

Berlin & Wien, Urban & Schwarzenberg, 1904.

The most important textbook on diseases of the lung of a generation ago.

55. BARD, JOHN. 1716-1799.

An Essay on the Nature and Cause of y^t^ malignant Plurisy [*sic*] . . .

MS. New York, January, 1749.

An able practitioner of colonial New York and Philadelphia, John Bard was the father of the more noted Samuel Bard. This manuscript was not published until after the author's death.

56. VIRCHOW, RUDOLF. 1821-1902.

Die Verstopfung der Lungenarterie und ihre Folgen.

In: Beiträge zur exp. Path. und Phys., h.*2:* 1-90, 1846.

Virchow was the first to recognize pulmonary embolism. He also discovered sarcinic and aspergillic forms of mycosis in the lungs and bronchial tubes. He showed the true relationship between lupus and tuberculosis.

57. ROKITANSKY, CARL. 1804-1878.

A Manual of pathological Anatomy.

Phila., Blanchard & Lea, 1855. Opened at vol. 4, p. 65.

He was the first to differentiate between lobar and lobular pneumonia. He also described and defined the bronchitic and pulmonary complications of typhoid as bronchotyphus and pneumotyphus. He was professor of pathological anatomy at Vienna.

58. FRAENKEL, ALBERT. 1848-1916.

Ueber die genuine Pneumonie.

In: Verh. Kongr. inn. Med., *3:* 17-31, 1884.

Report of the discovery of the pneumococcus as the cause of pneumonia. Fraenkel was assistant to Kussmaul and Traube at Leyden. He became professor of internal medicine and Director of the Medical Department of the Städt Krankenhaus am Urban, Berlin.

59. AVERY, OSWALD THEODORE; CHICKERING, HENRY THORNDYKE; COLE, RUFUS IVORY, and DOCHEZ, ALPHONSE RAYMOND.

Acute lobar Pneumonia. Prevention and Serum Treatment. Monograph no. 7 of the Rockefeller Institute for Medical Research.

N. Y., 1917.

This embodies the results of the investigations of the workers at the Rockefeller Institute into the groups of pneumococci and the serum treatment of lobar pneumonia. It is the most valuable research on the subject.

60. SALTER, HENRY HYDE. 1823-1871.

On Asthma: its Pathology and Treatment.

London, Churchill, 1860. Opened at pp. 340-1.

First description of asthma due to hypersensitiveness. Salter was professor of physiology at Charing Cross Hospital. He suffered all his life from asthma.

61. WIDAL, GEORGES FERNAND ISIDOR. 1862-1929; LERMOYEZ, MARCEL. 1858-1929; ABRAMI, PIERRE. 1879- ; BRISSAUD, ÉTIENNE. 1882- ; and JOLTRAIN, EDOUARD. 1879-

Les phénomènes d'ordre anaphylactique dans l'asthme. La crise hémoclasique initiale.

In: La presse médicale, *22:* 525-527, 1914.

The first description of the relationship between anaphylactic shock and asthma. Widal has been called the standard bearer of French medicine. He was clinical lecturer at the Hôpital Cochin, and possessed remarkable gifts for research and clinical work.

62. BLACKLEY, CHARLES HARRISON. 1820-1900.

Hay Fever: its Causes, Treatment, and effective Prevention.

2. ed. London, Baillière, Tindall, & Cox, 1880.

First experimental demonstration of pollen hypersensitiveness. Blackley practised as a homeopathist in Manchester, England. He was a great enthusiast about botany, microscopy and chemistry.

63. GREENHOW, EDWARD HEADLAM. 1814-1888.

Specimen of Coal-miner's black Lung.

In: Tr. Path. Soc. London, *16:* 60-61, 1865.

First report of the finding of silica in miner's phthisis. The author was a physician and lecturer on public health at St. Thomas's Hospital, London. He was one of the founders and an early president of the Clinical Society there.

64. Jenner, (Sir) William. 1815-1898.

Emphysema of the Lungs.

In: A System of Medicine, edited by J. Russell Reynolds, London & N. Y., 1871, *3:* 475-511.

The large-lunged emphysema of Jenner, also termed substantive or idiopathic, is a well-marked affection. Jenner also described atrophic emphysema as small-lunged. A Fellow of the Royal College of Physicians, he served as professor of clinical medicine at the University College Hospital, London, and was physician to the Queen and to the Prince of Wales.

65. Sicard, Jean Athanase. 1872-1929, and Forestier, Jacques.

Méthode générale d'exploration radiologique par l'huile iodée (lipiodol).

In: Bull. et mém. de la Soc. méd. des hôp. de Paris, 3.s. *46:* 463-469, 1922.

Report of the first use of lipiodol in x-ray of the bronchial tubes. Sicard occupied the chair of medicine at the Faculté de Médecine de Paris. Forestier is now in practice at Aix-les-Bains, France.

Cases 9 and 10

Important Developments in Lung Surgery made during the Nineteenth and early Twentieth Century

Prepared by F. B. Berry

66. Pouteau, Claude. 1725-1775.

Oeuvres posthumes.

Paris, Pierres, 1783. Opened at vol. 1, p. 323.

Earliest description of operation for abscess of lung and recognition of protective value of adhesions between parietal and visceral pleurae. Pouteau was one of the most celebrated surgeons of his time.

67. Larrey, Dominique Jean (le baron). 1766-1842.

Mémoire sur les plaies pénétrantes de la poitrine.

In: Mém. de l'Acad. roy. de méd., *1:* 221-250, 1828.

Traumatic surgery of the chest, one hundred years ago. The eminent surgeon, Larrey, served as Surgeon-in-chief to Napoleon's great army.

68. Review of War Surgery and Medicine. Prepared in the Office of the Surgeon General.

Washington, 1918-1919. Opened at vol. 1, no. 4.

This monograph on "War Wounds of the Lung" shows the modern concepts of traumatic surgery of the chest.

69. LAW, ROBERT. 1800-1875.

Cases of putrefactive Disorganization of the Lungs.

In: Dublin Med. Tr., n.s. *1:* 89-104, 1830.

An early description of gangrene of the lung. The author was physician to Sir Patrick Dun's Hospital, Dublin, and professor of the institutes of medicine there.

70. HUGHES, HENRY MARSHALL. 1805-1858, and COCK, EDWARD. 1805-1892.

On Paracentesis Thoracis; with Cases.

In: Guy's Hosp. Rep., 2.s. *2:* 48-104, 1844.

The earliest form of closed drainage for empyema. This was practised contemporarily by Trousseau in France, and first described in America by H. I. Bowditch, Boston, 1852. Hughes was physician to Guy's Hospital, and Cock was surgeon there.

71. ESTLANDER, JAKOB AUGUST. 1831-1881.

Encore quelques mots sur la résection des côtes dans l'empyème chronique.

In: Rev. mens de Méd. et de Chir., *3:* 885-888, 1879.

Estlander first advocated multiple rib resections for chronic empyema. This contains the first report of the operation. The author was professor of surgery at Helsingfors.

72. DE CÉRENVILLE, EDOUARD. 1843-1915.

De l'intervention opératoire dans les maladies du poumon.

In: Rev. méd. de la Suisse romande, *5:* 441-467, 1885. Opened at p. 443.

Earliest description of thoracoplastic operations for closure of cavities in chronic pulmonary tuberculosis. The author was professor of clinical medicine at the University of Lausanne.

73. TRUC, HERMENTAIRE. 1857-1929.

Essai sur la chirurgie du poumon dans les affections non traumatiques . . .

Paris, Baillière, Alcan, 1885. Opened at p. 33.

An early discussion of surgery of the lung: 1) Pneumectomy; 2) Intrapulmonary injections; 3) Pneumotomy. Truc abandoned his early interest in surgery and turned to ophthalmology. He became professor of the latter at Montpellier. This volume was lent through the courtesy of the Army Medical Library.

74. DELORME, EDMOND. 1847-1929.

Du traitement des empyèmes chroniques par la décortication du poumon.

In: Gaz. d. hôp., *69:* 1445-7, 1453-6, 1896.

The first description of decortication of lung for cure of chronic empyema. Delorme was professor of clinical surgery at Val-de-Grâce.

75. TUFFIER, THÉODORE. 1857-1929.

Chirurgie du poumon en particulier dans les cavernes tuberculeuses et la gangrène pulmonaire . . .

Paris, Masson, 1897.

Earliest monograph on the surgery of the lung. Tuffier made a specialty of lung diseases and stomach trouble. He did remarkable work in the treatment by anaesthesia with cocaine injections into the rachidean canal.

76. BRAUER, LUDOLPH. 1865- , and FRIEDRICH, PAUL LEOPOLD, 1864-1916.

Über Lungenchirurgie.

In: Verhandl. d. Gesellsch. deutsch. Naturf. u. Aerzte, 1908, 80. Versamml. pt. *2:* 166-186, 1909.

Early advocates of collapse therapy in chronic pulmonary tuberculosis, both by pneumothorax and extrapleural thoracoplasty. Brauer is professor of internal medicine at Hamburg and director of the Krankenhaus Hamburg-Eppendorf.

77. MEYER, WILLY. 1858-1932.

Pneumectomy with the Aid of differential Air Pressure: an experimental Study. The new Type of Apparatus used.

In: J.A.M.A., *53:* 1978-1987, 1909.

Pioneer work in America on pneumectomy and differential pressure anaesthesia. The development of thoracic surgery in this country owes much to Meyer. He founded the N. Y. Society for Thoracic Surgery and the American Association for Thoracic Surgery.

78. SAUERBRUCH, FERDINAND. 1875- , and SCHUMACHER, EMIL DAGOBERT. 1880-1914.

Technik der Thoraxchirurgie.

Berlin, Springer, 1911. Opened at p. 44.

The first description of paravertebral thoracoplasty for chronic pulmonary tuberculosis. Sauerbruch studied under Langerhans, Mikulicz and Friedrich. He is now director of the surgical clinic in the University of Berlin. Schumacher was assistant in the surgical clinic at Zurich under Kroenlein.

79. MELTZER, SAMUEL JAMES. 1851-1920.

The Method of Respiration by Intratracheal Insufflation . . .

In: Med. Record, *77:* 477-483, 1910.

First description of the intratracheal method of anaesthesia. Meltzer directed the Rockefeller Institute's department of physiology and pharmacology.

80. MacMahon, Cortlandt.

Breathing and physical Exercises for Use in Cases of Wounds in the Pleura, Lung and Diaphragm.

In: Lancet, *2:* 769-770, 1915.

Description of breathing and physical exercises for use in cases of wounds of pleura, lung, and diaphragm and following empyema to promote re-expansion of lung, and to prevent deformity of chest. The author, not a medical man, is instructor for speech defects at St. Bartholomew's Hospital.

81. Jacobaeus, Hans Christian. 1879-

Endopleurale Operationen unter der Leitung des Thorakoskops.

In: Beitr. z. Klin. d. Tub., *35:* 1-35, 1916.

First description of thoracoscopy and the division of adhesions in incomplete artificial pneumothorax. Thoracoscopy first described by him in 1912. He is professor of clinical medicine at the Karolinska Institutet, Stockholm.

82. Mackenty, John Edmund. 1869-1931.

Cancer of the Larynx.

N. Y., [1927]. Opened at pp. 56-57.

One of the foremost contributions on malignant growths of the larynx. Mackenty was a pioneer in laryngeal surgery. His method of operation and his artificial larynx won widespread acclaim in 1927. He was surgeon to the Manhattan Eye, Ear and Throat Hospital and was a Fellow of the New York Academy of Medicine.

FOR THE GENERAL PRACTITIONER

A Selection of Some of the Best Modern Books on the Respiratory System

Chosen by Frank B. Berry and Israel Rappaport

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N. Y., Longmans, 1912.

Clifford, Randall. The Sputum . . .
N. Y., Macmillan, 1932.

Fishberg, Maurice. Pulmonary Tuberculosis.
Phila. & N. Y., Lea & Febiger, 1916.

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Phila., Lea & Febiger, 1935.

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N. Y. & London, Harper, 1934.

HENDERSON, YANDELL, and HAGGARD, HOWARD WILCOX. Noxious Gases . . .
N. Y., Chemical Catalog Co., 1927.

JACKSON, CHEVALIER, and JACKSON, CHEVALIER LAWRENCE. Bronchoscopy, Esophagoscopy and Gastroscopy. 3. ed.
Phila. & Lond., Saunders, 1934.

LETULLE, MAURICE. Anatomie pathologique.
Paris, Masson, 1931, vol. 1, pp. [634]-708, "Appareil circulatoire. E. — Poumons."

LILIENTHAL, HOWARD. Thoracic surgery . . .
Phila. & Lond., Saunders, 1925.

LORD, FREDERICK TAYLOR. Diseases of the Bronchi, Lungs, and Pleura.
Phila. & N. Y., Lea & Febiger, 1925.

MILLER, JAMES ALEXANDER. "Diseases of the respiratory Tract," in *Internal Medicine* . . . edited by John H. Musser. 2 ed.
Phila., Lea & Febiger, 1934, pp. 688-805.

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Phila. & Lond., Saunders, 1933.

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N. Y., Hoeber, 1926.

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N. Y., Macmillan, 1931.

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WESSLER, HARRY, and JACHES, LEOPOLD. Clinical roentgenology of Diseases of the Chest.
Troy, N. Y., Southworth, 1923.

WINGFIELD, RUDOLPH CHARLES. A Text-book of pulmonary Tuberculosis for Students.
London, Constable, 1929.

RECENT ACCESSIONS TO THE LIBRARY

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N. Y., Macmillan, 1935, 228 p.

American Pharmaceutical Association. The national formulary. 6. ed.
Wash., Amer. Pharm. Assoc., 1935, 556 p.

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[Minneapolis], Univ. of Minn. Press, 1935, 145 p.

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London, Allen, [1935], 215 p.

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London, Faber, [1935], 335 p.

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London, Arnold, [1935], 288 p.

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PROCEEDINGS OF ACADEMY MEETINGS

FEBRUARY

STATED MEETINGS

Program arranged in cooperation with the SECTION OF SURGERY—February 6

I. EXECUTIVE SESSION—a. Reading of the minutes; b. Election of Members.

SCIENTIFIC PROGRAM

II. PRESENTATION OF CASES—a. 1. Diverticulitis with phlegmon of the sigmoid; 2. Ulcerating carcinoma of colon with adenitis. Five and a half years after operation, A. Lightstone; b. Radiation therapy as a selective method of treatment for rectal cancer. Two cases, George E. Binkley; c. Adenocarcinoma of the rectum with ball-valve colostomy, ten years after operation by electrosurgery, George A. Wyeth.

III. PAPERS OF THE EVENING—a. Diverticulitis of the colon, Carl Eggers; b. The more recent advances in the treatment of carcinoma of the sigmoid and rectum, Daniel F. Jones, Boston (by invitation).

IV. GENERAL DISCUSSION.

V. EXECUTIVE SESSION—SECTION OF SURGERY.

THE HARVEY SOCIETY (IN AFFILIATION WITH THE NEW YORK ACADEMY OF MEDICINE)

February 20

THE FIFTH HARVEY LECTURE, "The Interrelation of Cerebrum and Cerebellum in the Regulation of Somatic and Automatic Functions," John Farquar Fulton, Sterling Professor of Physiology, Yale University.

This lecture takes the place of the second Stated Meeting of the Academy for February.

SECTION MEETINGS

SECTION OF DERMATOLOGY AND SYPHILOLOGY—February 4

I. READING OF THE MINUTES.

II. PRESENTATION OF CASES—a. Mt. Sinai Hospital; b. Miscellaneous Cases.

III. DISCUSSION OF SELECTED CASES.

COMBINED MEETING OF SECTION OF NEUROLOGY AND PSYCHIATRY and SECTION OF ORTHOPEDIC SURGERY—February 11

I. PAPERS OF THE EVENING—a. Neurological aspects of so-called sciatic pain, Byron Stookey (Lantern slides); Discussion, Angus Frantz; b. Paravertebral nerve block in rehabilitation and for the relief of pain in the back and extremities, M. B. Greene; Discussion, Charlton Wallace, Everett A. Tyler, Phila. (by invitation); c. Experiences with fasciotomy for the relief of low back and so-called sciatic pain, Alan de Forest Smith; Discussion, Leo Mayer, Lewis C. Wagner, Mather Cleveland, Philip D. Wilson.

SECTION OF PEDIATRICS—February 13

I. PAPERS OF THE EVENING—a. Clinical experience with crystalline vitamin D. The influence of menstruum on the effectiveness of anti-rachitic factor, Jacques M. Lewis; b. Mortality in tuberculin-positive infants, Miriam Brailey, The Johns Hopkins Hospital (by invitation).

II. DISCUSSION—Mr. Godias J. Drolet (by invitation), Herbert R. Edwards, Camille Kereszturi, Charles H. Smith, Benjamin Kramer.

SECTION OF OPHTHALMOLOGY—February 17

INSTRUCTIONAL HOUR, 7:00-8:00, Bernard Samuels—The pathology of glaucoma.

SLIT-LAMP—Demonstration of cases, 7:30-8:30, Milton L. Berliner, Girolamo Bonoccalto, Gordon M. Bruce, Wendell L. Hughes.

SCIENTIFIC PROGRAM

I. READING OF MINUTES.

II. REPORT OF COMMITTEE TO NOMINATE NEW MEMBER OF ADVISORY COMMITTEE.

III. PRESENTATION OF INSTRUMENT—A new type of telescopic lens, Milton L. Berliner (5 minutes).

IV. REPORT OF CASES—a. Methylene blue staining of the eye, Alexander Gerber (by invitation), Robert K. Lambert, Mrs. E. B. Burchell (by invitation); b. Complete homokeratoplasty, James G. Morrissey (by invitation); c. The therapeutic value of the contact glass in keratitis e lagophthalmo & keratitis neuroparalytica, Daniel M. Rolett (5 minutes) (by invitation).

V. PAPERS OF THE EVENING—a. The pathology of chronic inflammatory conditions of the cornea, Bernard Samuels; b. Benzyl cinnamic ether in the treatment of trachoma and corneal opacities, Jacob Jacobson, Paris, France (by invitation); c. Reports of cases treated with benzyl cinnamic ether, 1. Wendell L. Hughes, 2. Adolph Posner (by invitation), 3. Henry Skeel, 4. Erwin Jessel (by invitation), 5. Ramon Castroviejo, 6. Ervin Tusak.

SECTION OF GENITO-URINARY SURGERY—February 19

I. READING OF THE MINUTES.

II. PRESENTATION OF CASE—Diverticulum of the prostatic urethra with stone, J. Bayard Clark.

III. PAPERS OF THE EVENING—a. Nephroptosis: analysis of palliative and operative treatment in 266 cases, Cyril K. Church (by invitation); b. A new operation for stricture at the ureteropelvic junction. Report of cases, Frederic E. B. Foley, St. Paul, Minn. (by invitation); Discussion, Clarence Bandler, Edwin Beer, George Hoch, Fedor Senger, Augustus Harris, Dr. C. G. L. Van Dyke, South Africa, Henry D. Furniss.

IV. GENERAL DISCUSSION.

SECTION OF OTOLARYNGOLOGY—February 19

I. READING OF THE MINUTES.

II. PRESENTATION OF CASES—a. Reparative processes in labyrinthitis following epidemic meningitis, Joseph G. Druss; b. Gradenigo Syndrome simulating an expanding intracranial lesion, Walter Horn; c. Unusually early pleuro-pulmonary metastasis and sinus thrombosis, Harry Rosenwasser.

III. PAPERS OF THE EVENING—a. Malignancies of the nasopharynx, Louis Kleinfeld; b. Complications of acute paranasal sinusitis with special reference to bacteremia, Joseph L. Goldman (by invitation); c. Sphenoid sinusitis with meningitic symptoms, Rudolph Kramer, Max Som (by invitation); d. Thrombo-phlebitis of the jugular bulb and lateral sinus of non-otitic origin. Important ear findings; 1. Report of three cases, Samuel Rosen; 2. Origin and extension from throat infection, Irving Goldman; 3. Retrograde extension to the jugular bulb and lateral sinus. Diagnosis and management, Jacob L. Maybaum; 4. Discussion, Samuel Karelitz.

IV. GENERAL DISCUSSION—Opened by Isadore Friesner.

SECTION OF OBSTETRICS AND GYNECOLOGY—February 25

I. PAPERS OF THE EVENING—a. A preliminary study of the histological changes in the human cervical mucosa, Anthony Wollner; Discussion opened by Theodore Neustaedter; b. Mechanical principles in the management of occipitoposterior positions, John Mann, Toronto (by invitation); Discussion opened by Howard C. Moloy (by invitation), Edward H. Dennen, Hervey C. Williamson; c. Analgesia in labor; a modified Gwathmey technique (with moving picture), Charles O. McCormick, Indianapolis, Associate Professor of Obstetrics, Indiana University School of Medicine (by invitation); Discussion opened by James T. Gwathmey, James A. Harrar (by invitation).

II. GENERAL DISCUSSION.

NOTICE: SECTION OF ORTHOPEDIC SURGERY—The meeting of the Section of Orthopedic Surgery was not held on the regular date as the section held a combined meeting with the Section of Neurology and Psychiatry on February 11th.

AFFILIATED SOCIETIES

NEW YORK ROENTGEN SOCIETY *in affiliation with* THE NEW YORK ACADEMY OF MEDICINE

JOINT MEETING WITH THE NEW YORK GASTROENTEROLOGICAL SOCIETY—February 17

I. PRESENTATION OF INTERESTING CASES.

II. PAPERS OF THE EVENING—a. Effects of various types of foodstuffs on gastrointestinal motility; b. Partial observations on gastrointestinal manifestations in hyperthyroidism, Eugene P. Pendergrass, Philadelphia (by invitation).

III. DISCUSSION—Opened by Lewis Gregory Cole, Burrill B. Crohn.

IV. EXECUTIVE SESSION.

COMBINED MEETING OF NEW YORK PATHOLOGICAL SOCIETY and THE SECTION OF MEDICINE

February 18

SYMPOSIUM ON ETIOLOGY OF NEOPLASMS

I. HEREDITARY FACTORS—Clara J. Lynch (30 minutes) (by invitation).

II. CHEMICAL FACTORS—Francis Carter Wood (30 minutes).

III. BIOLOGICAL ASPECTS—James B. Murphy (30 minutes); Discussion (5 minutes each), Halsey J. Bagg (by invitation), Jacob Furth, James Ewing.

NEW YORK MEETING OF THE SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE *under the auspices of* THE NEW YORK ACADEMY OF MEDICINE—February 19

I. Some effects of pentobarbital on the rabbit, S. N. Blackberg, M. C. Hrubetz (Introduced by C. C. Lieb).

II. Studies on vasomotor reflexes. Vasoconstriction from a deep inspiration of air, C. C. Lieb, M. G. Mulinos, H. L. Taylor.

III. Hyperproteinemia, with reversal of the albumin: globulin ratio, in lymphogranuloma inguinale, R. D. Williams, A. B. Gutman (Introduced by R. F. Loeb).

IV. Inulin and its suitability for intravenous administration in man, W. Goldring, H. W. Smith.

V. Function of pituitary grafts in mice, R. T. Hill, W. U. Gardner (Introduced by E. Allen).

VI. Local uterine growth in untreated ovariectomized rabbits, S. R. M. Reynolds, S. Kaminester.

VII. Electrocardiographic changes following coronary sinus occlusion in the dog's heart, L. Gross, A. M. Master, G. Silverman.

IX. X-ray absorption coefficients of coronal and root dentin, F. Hollander, E. Vesely.

MEMBERS ELECTED—JANUARY 2, 1936

Rudolph Aebli ..... 30 East 40 Street
Frederick Henry Amendola ..... 667 Madison Avenue
Robert Stanley Bickley ..... 2 East 70 Street
Ramon Castroviejo ..... 635 West 165 Street
Chester Oliver Davison ..... 1 Fulton Court, Poughkeepsie
Thomas Francis Duhigg ..... 641 Washington Street
Samuel Budd English ..... Glen Gardner, N. J.
Emanuel Zachary Epstein ..... 1127 Park Avenue
Martin A. Furman ..... 142 West 87 Street
Frank Glenn ..... 525 East 68 Street
Charles Kemm Good ..... 2 East 54 Street
Loren Pritchard Guy ..... 116 East 62 Street
Thomas Francis Howley ..... 440 West 34 Street
Sheldon Albert Jacobson ..... 1919 Madison Avenue
Herbert Robert Kenyon ..... 2 East 54 Street
Samuel Harold Klein ..... 17 East 96 Street
Olga Knopf ..... 315 East 68 Street
John A. Lawler, Jr. ..... 115 East 61 Street
Andrew Anthony Marchetti ..... 333 East 53 Street
Peter Marshall Murray ..... 2588 Seventh Avenue
Emery Andrew Rovenstine ..... 477 First Avenue
Nathan Sobel ..... 200 West 59 Street
Irving Somach ..... 71 East 87 Street
Abraham Bernard Tamis ..... 240 East 175 Street
Annis Eveleen Thomson ..... 30 Madeline Pkwy., Yonkers
Ervin Anthony Tusak ..... 115 East 90 Street
James Leonard Vickers ..... Maple Ave., Greenwich, Ct.
Bettina Warburg ..... 23 East 74 Street
Leo Wilson ..... 1015 Gerard Avenue
Fritz Siegfried Wittels ..... 91 Central Park West
Walter Franz von Zelinski ..... c/o Surgeon General, Washington

MEMBERS ELECTED—FEBRUARY 6, 1936

Raymond Bernard Allen ..... 303 East 20 Street
Harold George Wolff ..... 525 East 68 Street

OBITUARY

CHARLES ALFRED BALLANCE

1856-1936

A colorful personality and a distinguished figure in English medicine and surgery has been removed by the death of Sir Charles Ballance on February 9, 1936, in the eightieth year of his age.

Charles Alfred Ballance began his medical studies in the school of St. Thomas's Hospital as a member of London University in 1875. He was known as a brilliant student and on his graduation in 1881 and 1882 received the degrees of B.M., B.S. and M.S. with first class honors and gold medals.

During the years of undergraduate study he developed a passion for research which was to dominate his professional career and which continued during his entire life even after his active work as a surgeon had ended.

Soon after graduation he was appointed Assistant Aural Surgeon to St. Thomas's Hospital and afterwards Assistant Surgeon to the West London Hospital. In the early years of his professional career he was greatly interested in diseases of the ear and he was one of the first to perform the complete mastoid operation with ligature of the jugular vein and drainage of the lateral sinus. Ballance never lost his interest in otology, and many years later published two volumes on the anatomy and surgery of the temporal bone. His last experimental research was done in this country in association with Arthur B. Duel on the surgical treatment of facial paralysis.

In 1891, he was appointed on the staff of the Hospital for Paralyzed and Epileptic in Queen Square, London. There he met a kindred spirit in Victor Horsley, and developed a great interest in the surgery of the nervous system. Like Horsley, he frequented the physiological laboratory and his enthusiasm for laboratory research never diminished. His interests were greatly diversified as shown by the variety of subjects which he studied. Alone or with collaborators he published papers and books on a large number of topics: on the ligation of arteries (1889), on nerve anastomosis and nerve grafting (1902), on surgery of the heart (1919), on surgery of the brain (1921), on surgical treatment of paralysis of the vocal cord and of the diaphragm (1927). For several years he made an intensive study of parasitic protozoa, hoping thus to discover the etiology of malignant disease.

Ballance was a man of wide reading and of many interests, and his life was a busy one. As a surgeon he was a very slow and deliberate operator, scrupulously conscientious in his work at the operating table as in the laboratory. His sincerity and enthusiasm gained him many admirers and friends among his colleagues at home and abroad. They were proud to honor him.

He was President of the Medical Society of London, and Vice-President of the Royal College of Surgeons, Consulting Surgeon to St. Thomas's Hospital and to the National Hospital, Queen Square. At the age of thirty-three, he delivered the Erasmus Wilson Lecture on ligation of arteries, and in succeeding years, the Bradshaw Lecture on surgery of the heart, the Vicary Lecture on the history of surgery of the brain, the McEwen Lecture in Glasgow, and the Lister Memorial Lecture in London. He received honorary degrees from the Universities of Glasgow and of Malta, and after serving in the near East as consulting surgeon during the War, he was knighted.

When the Society of British Neurological Surgeons was formed in 1927, he was elected its first president, and at the inaugural meeting of that Society, he held his audience enthralled by his reminiscences of the great figures which had played a part in the development of neurological surgery.

In 1933, he was elected an Honorary Fellow of The New York Academy of Medicine.

Sir Charles was a Victorian who was proud that he had lived in the times of Ferrier, Horsley, Gowers, Sherrington and Cushing, to mention only a few names, and he greatly admired all of them. He had a genial personality and a fine presence, and even at an advanced age his enthusiasm for and sincerity in his work were undiminished. At the age of seventy-five years, he was in this country to do, with Dr. Duel, important experimental research on the surgical treatment of facial paralysis, and his enthusiasm and energy greatly impressed all who came in contact with him. He

had an impelling drive to search for truth, and this and his accomplishments ensure him of a niche in the Hall of Fame.

CHARLES A. ELSBERG.

DEATHS OF FELLOWS AND HONORARY FELLOWS OF THE ACADEMY

BALLANCE, SIR CHARLES (ALFRED), K.C.M.G., C.B., M.V.O., LL.D., M.S., F.R.C.S., Greencroft Gardens 82, Homestead N. W. 6, London, England; elected an Honorary Fellow of the Academy March 2, 1933; died February 10, 1936.

CRAIG, C. BURNS, M.D., 10 Gracie Square, New York City; graduated in medicine from Western Reserve University in 1911; elected a Fellow of the Academy April 19, 1922; died February 24, 1936. At the time of his death, Dr. Craig was clinical professor of neurology at the College of Physicians and Surgeons and associate director of the Neurological Institute. He was consultant neurologist to the Rockland State Hospital, the Fordham Hospital and the Paterson General Hospital. Dr. Craig was a Fellow of the American Medical Association, and a member of the State and County Medical Societies, the American Neurological Association and the Association for Research in Nervous and Mental Disease. He served the Academy as Secretary and Chairman of the Section of Neurology and Psychiatry from 1933 to 1935; as a member of the Committee on Medical Education since 1933 and as a member of the Library Committee since May 1935. Dr. Craig contributed many articles to medical books and journals on neurological subjects. During the world war he served with the American Ambulance Corps in France, 1914-1915; in the Surgeon General's office in Washington, 1917-1918; with the 77th Division in this Country and in France and with the headquarters of the Second Army, A.E.F.

DENCH, EDWARD BRADFORD, Ph. B., M.D., Hotel Gotham, New York City, received the degree of Bachelor of Philosophy from Yale University in 1883 and was graduated in medicine from the College of Physicians and Surgeons in 1885; elected a Fellow of the Academy March 13, 1890; died February 21, 1936. Dr. Dench was consultant otologist to St. Luke's Hospital and the New York Eye and Ear Infirmary. For some time he was professor of otology in the New York University and Bellevue Hospital Medical College. He was president of the New York Otological Society 1904-1908 and of the New York Clinical Society in 1909; a Fellow of the American College of Surgeons and the American Medical Association; an honorary member of the Royal Society of Medicine and the Austrian Otological Society, and a member of the American Laryngological, Rhinological and Otological Society and the County and State Medical Societies.

MATTHEWS, FRANK STUART, B.S., M.D., 49 West 52 Street, New York City; received his degree of Bachelor of Science from Washington and Jefferson College in 1890 and graduated in medicine from the College of Physicians and Surgeons in 1893; elected a Fellow of the Academy May 9, 1904; died February 17, 1936. Dr. Matthews was for more than twenty years an attending surgeon to St. Luke's Hospital. He was also attending surgeon to St. Francis Hospital and St. Mary's Free Hospital for Children and consulting surgeon to the Lawrence Hospital and the Hospital for Ruptured and Crippled. He was at one time clinical professor of surgery at the College of Physicians and Surgeons. In 1922, the honorary degree of LL.D. was conferred upon him by Washington and Jefferson College. He was a Fellow of the American College of Surgeons and the American Medical Association, and a member of the American Surgical Association, the New York Surgical Society and the County and State Medical Societies.

PAVLOV, IVAN PETROVICH, M.D., Leningrad, Russia; graduated in medicine from the University of St. Petersburg and the Military Academy of Medicine; elected an honorary member of the Academy February 4, 1904; died February 27, 1936.

QUINTARD, EDWARD, M.D., 1060 Fifth Avenue, New York City; graduated in medicine from the College of Physicians and Surgeons in 1887; elected a Fellow of the Academy May 5, 1891; died February 12, 1936. Dr. Quintard was vice-president, professor of medicine, and medical director of the New York Post-Graduate Medical School and Hospital from 1900-1920. He was a member of the County and State Medical Societies, a Fellow of the American College of Physicians, the American Medical Association, the Congress of Internal Medicine and the Harvey Society. Dr. Quintard belonged to a number of literary societies and was the author of many sonnets and essays.

ROTHSCHILD, MARCUS ADOLPHUS, B.A., M.D., 930 Park Avenue, New York City, graduated in medicine from the College of Physicians and Surgeons in 1911; elected a Fellow of the Academy December 29, 1925; died February 16, 1936. Dr. Rothschild was staff physician and president of the Medical Board of Beth Israel Hospital, cardiologist to the Broad Street-Pan American Hospital, clinical professor of medicine at New York University College of Medicine and consulting physician to the French Hospital. He was president-elect of the Medical Society of the County of New York, Fellow of the American Medical Association, a member of the American Association of Pathologists and Bacteriologists, the American Chemical Society, the Harvey Society, the American Heart Association, the American Society for the Advancement of Clinical Investigation and the American Society for the Advancement of Science. He was the author of numerous books and papers on pathology and clinical medicine.

STEESE, EDWIN STURTEVANT, M.D., 75 East 55 Street, New York City; graduated in medicine from Harvard University School of Medicine in 1893; elected a Fellow of the Academy March 17, 1904; died February 7, 1936. Dr. Steese was a Fellow of the American Medical Association and a member of the County and State Medical Societies.